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Runoff to Rain Gardens

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Problem

Overloading of the sewer system is causing runoff to pollute local areas

Social Dimensions:
- People cannot enjoy the space due to urban runoff contamination

Economic Dimensions:
- Risks and costs associated with increased pollution and flooding

Environmental Dimensions:
- Local bodies of water are being contaminated by pollutants from sewage system overflow and runoff

Research Plan

- Identified possible solutions to urban runoff
- Interviewed experts to determine optimal solution
- Created a plan to design and implement a rain garden on campus

Future Location at WPI

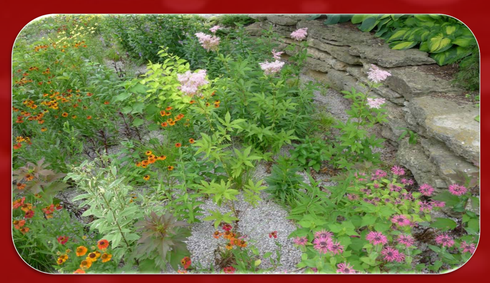
Goals and Objectives

To mitigate the effects of runoff from the WPI Campus

- Understand problems caused by runoff in urban/suburban settings like Worcester
- Design and propose a solution to be implemented in the spring to combat this problem

Flow of Runoff on WPI Campus

Solution: Rain Gardens



Easy to manage and maintain

Prevents direct contamination of nearby bodies of water

Prevents sewer system overflow

Cost effective for a large scale problem

Provides a clean way to release water back into the ground

Contains pollutants picked up from urban infrastructure

Recommendations

- Install a rain garden to reduce WPI's storm water runoff
- Post signs on urban storm water runoff and rain gardens to inform the community of their impacts
- Collaborate with WPI's green team for implementation and up-keep of the rain garden
- Celebrate the implementation of the rain garden to get the WPI community more informed and excited about the rain garden

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